

**What is claimed is:**

1. In an apparatus providing a communication between users using a terminal connected with an internet network based on a connection with an internet service provider network by receiving a static internet protocol address or a dynamic internet protocol address, an apparatus providing a communication service based on a personal identifier in an internet network, comprising:

a user information management means connected with the internet network for providing a unique personal identifier to a user and providing a communication service based on the personal identifier information, wherein said user information management unit includes:

a user information service unit for verifying a user information based on the personal identifier information and providing a service that a user wants, to a user's terminal through the internet network; and

a user information storing unit connected with the user information service unit for storing the personal identifier and user information.

2. The apparatus of claim 1, wherein said user information storing unit stores a user information which represents a current connection state of a user, wherein said user information includes a personal identifier of a user, an internet protocol address of a terminal which is currently used by the user, and an internet application service information which is currently used by the user for an internet application.

3. The apparatus of claim 2, wherein said internet application service information includes a mobile communication information including an identifier of a mobile

communication terminal of a current user.

4. The apparatus of claim 1, wherein said personal identifier is used in the same form as an existing domain name by combining a user identifier and a domain name of the user information management means.

5. The apparatus of claim 1, further comprising means connected with the user information management unit for transferring a user applet to a user terminal and receiving the user information.

6. The apparatus of claim 1, wherein said user information management unit receives a user information from the user terminal which includes a personal information software for registering a user information.

7. In an apparatus providing a communication between users using a terminal connected with an internet network based on a connection with an internet service provider network by receiving a static internet protocol address or a dynamic internet protocol address, a method for providing a communication service based on a personal identifier in an internet network, comprising:

a user information service providing step in which an internet network is connected for providing a unique personal identifier to a user and providing a communication service based on the personal identifier information, wherein said user information service providing step includes:

a first step for receiving a personal identifier information, a verification information and a user information service request message from a user which are

needed for a user verification;

a second step for verifying a user based on the personal identifier and verification information;

a third step for performing a user information service based on the type of  
5 each user information service request message; and

a fourth step for transferring a result message obtained based on an execution of the user information service to the user in accordance with the type of the user information service request message.

10 8. The method of claim 7, wherein said user information service request message of the third step includes:

a user information management request message for requesting a user information management;

a user information inquiry request message for inquiring the information of  
15 other user who the user wants to communicate; and

a user information deletion request message for deleting a registered user information by a user information management request.

9. The method of claim 7, wherein said third step includes:

20 a step for receiving a user information packet including a user information of the current user from the user terminal when the type of the user information service request message is a user information management request;

a step for extracting and storing a user information and a personal identifier information of the user from the user information packet received; and

25 a step for generating a user information registration message which reports

that the user information and the personal identifier information are registered.

10. The method of claim 7, wherein said third step includes:

a step in which the user information registration unit receives a personal  
5 identifier of a user and a verification information needed for a user verification  
from the user terminal when the type of the user information service request  
message is a user information management request;

a step for verifying a user based on the personal identifier received and the  
verification information;

10 a step in which the user information registration unit transfers a user applet  
to the user terminal, and the user applet is performed;

a step for receiving a user information packet including a user information  
of the current user from the user terminal based on the user applet;

a step for transferring the received user information packet to the user  
15 information management unit; and

a step for generating a user information registration message which reports  
that the user information and the personal identifier information are registered.

11. The method of claim 7, wherein said third step includes:

20 a step for receiving a personal identifier of a user and a verification  
information needed for the user identification from the user terminal based on a  
connection with the user terminal including a personal information software when  
the type of the user information service request message is a user information  
management request;

25 a step for verifying a user based on the personal identifier and verification

information;

a step for executing a personal information software of the user terminal;

a step for receiving a user information packet including a user information  
of the current user from the user terminal based on the personal information  
software; and

a step for generating a user information registration message which reports  
that the user information and personal identification information are registered.

12. The method of claim 9, wherein said user information packet includes:

a dialing side internet protocol address which represents an internet  
protocol address of a terminal of the current user;

an incoming side internet protocol address which represents an internet  
protocol address of the user information management unit for receiving the user  
information packet;

a personal identifier which represents a user's personal identifier;

a private/public network flag which represents whether the terminal of the  
user exists in a private internet protocol network or in a public internet;

a terminal internet protocol address which represents a public internet  
protocol address of the terminal in the case that the terminal exists in the public  
internet and which represents a public internet protocol address allocated to a  
gateway which connects the private network and public internet network when the  
terminal exists in the private internet protocol network;

an internet application type which represents the type of the internet  
application operated by the user; and

a node identifier information which represents an internet protocol address

information based on the type of the internet application.

13. The method of claim 12, wherein said internet application types and node identifier information are provided in multiple numbers based on the number of the internet applications operated by the user.

14. The method of claim 12, wherein said type of the internet application includes a mobile communication type of the current user, and the node identifier information further includes an identifier of the mobile communication terminal.

15. The method of claim 7, wherein said third step includes:

a step for receiving a personal identifier of other user which is an object of the user information inquiry and an information with respect to the type of the internet application which will be serviced when the type of the user information service request message is a user information inquiry request;

a step for searching a user information of a user which is an inquiry object based on the received personal identifier information and the internet application service type information; and

a step for generating a user information message based on the user information corresponding to the personal identifier.

16. The method of claim 15, wherein said user information search step includes:

a step for searching a node identifier information corresponding to the internet application service type when the internet application service type information is an inquiry request with respect to the internet application type;

a step for searching a node identifier information corresponding to the internet application service type when the internet application service type is a request with respect to an inter-working with the internet application service; and

a step for searching an identifier information of the identifier information  
5 of the node identifier information corresponding to the internet application service type when the internet application service type information is a connection request with a communication session.

17. The method of claim 7, wherein said third step includes:

10 a step for receiving a personal identifier information of a user and a user information from the user when the type of the user information service request message is a user information deletion request;

a step for searching and deleting a personal identifier and a user  
information corresponding to the personal identifier information and user  
15 information received from the user; and

a step for generating a user information deletion message which represents that a user information of the user is deleted.

18. The method of claim 7, further comprising:

20 a step for searching a mapping relationship information of the type of an internet application and a node identifier information with respect to a personal identifier of other user which is an object of the inquiry when the user information service request message type is an internet service inter-working request among the user information inquiry requests when transmitting a result message in the fourth  
25 step; and

a step for connecting the user's terminal which requested an inquiry through the mapping relationship information to an internet application service of the other user.

5 19. The method of claim 7, further comprising:

a step for searching a mobile communication service type of the current user based on the type of the internet application with respect to a personal identifier of other user which is an object of the inquiry when the type of the user information service request message is a request of a connection with a  
10 communication session among the user information inquiries when transferring a result message in the fourth step;

a step for searching an identifier information of the mobile communication terminal based on the mobile communication service type through the node identifier information of other user;

15 a step for connecting with a communication system using an identifier information of the mobile communication terminal;

a step for setting a communication session to the mobile communication terminal based on an inter-working with the mobile communication network through the gateway of the internet; and

20 a step for connecting the terminal of a user who requested an inquiry through the communication session and the mobile communication terminal.